



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/724,375	11/26/2003	Zhi-Min Choo	2060-3-85	9666
35884	7590	07/30/2007	EXAMINER	
LEE, HONG, DEGERMAN, KANG & SCHMADEKA 660 S. FIGUEROA STREET Suite 2300 LOS ANGELES, CA 90017			BEMBEN, RICHARD M	
		ART UNIT	PAPER NUMBER	
		2622		
		MAIL DATE	DELIVERY MODE	
		07/30/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/724,375	CHOO, ZHI-MIN
	Examiner	Art Unit
	Richard M. Bemben	2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 26 November 2003.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-10 and 12-20 is/are rejected.
- 7) Claim(s) 11 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

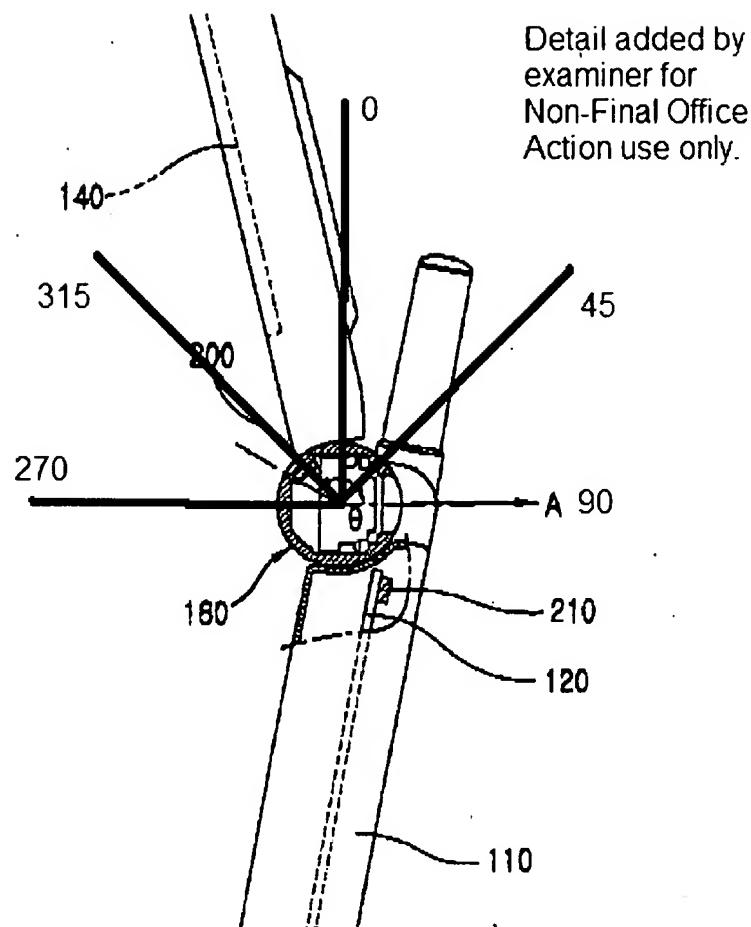
- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date _____
- 5) Notice of Informal Patent Application
- 6) Other: _____

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

Applicant's specification (US 2004/0110541) requires photographic apparatus 160 to have a range of motion of 180° ([0030]). Referring to paragraphs [0034] & [0035] and Figures 5 & 6, the limits of the photographic apparatus' rotation are unclear. For instance, if direction "A" in Figure 5 is 90° and the photographic apparatus can rotate 180°, in order to be able to capture images of both the user and the scene at 90°, the photographic apparatus must only rotate between 270° and 90°, through 0° (which is the 180° rotation required). This is shown below:



Modified Figure 5 from applicant's specification

According to [0034], if the photographic apparatus is rotated from 330° to 90°, the rotation angle is less than or equal to 150°. First, rotation between 330° to 90° is less than or equal to 120°. Second, it appears that the 150° rotation ends at direction "A" or 90°. However, [0035] appears to require the photographic apparatus to rotate at an angle exceeding 150° (it is unclear where the 150° starts and ends, it is assumed by the examiner that the 150° ends at 90° according to Fig. 5). As described above, if the photographic apparatus can only

rotate between 270° and 90° through 0°, then the rotation angle cannot exceed 150° (if 150° ends at 90°).

Appropriate clarification and/or correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. **Claims 3 and 14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. See discussion above.**

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. **Claims 3 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. As claimed, the angle ranges have no point of reference.**

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. **Claims 1, 2, 4, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Vance et al. (US 6,992,699), here after “Vance”.**

Regarding **claim 1**, Vance discloses a mobile communication terminal (c. 2, II. 31-42) comprising:

a photographic apparatus rotatively connected to the terminal (c. 2, I. 63 – c. 3, I. 5; Fig. 1, “32”, image sensor; c. 3, I. 26 – c. 4, I. 23; Figs. 4&5, optics);
a magnet connected to the photographic apparatus, wherein the magnet generates a magnetic flux; and a magnetic flux sensor connected to the terminal, wherein an image produced by the photographic apparatus is inverted when the magnetic flux sensor detects the magnetic flux (c. 4, II. 24-56, Hall-effect sensors, magnetic sensors; according to Vance, detection triggers inversion).

Regarding **claim 2**, refer to the rejection of claim 1 and it is inherent that when using a magnetic sensor, a magnet approximates to the sensor and is detected.

Regarding **claim 4**, refer to the rejection of claim 1 and Vance further discloses that the inverted image is reproduced on a display in the terminal (c. 4, II. 33-37).

Claim 20 is a method claim corresponding to apparatus claim 1. Therefore, claim 20 is analyzed and rejected as previously discussed with respect to claim 1.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. **Claims 12, 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vance in view of Official Notice, hereafter “ON”.**

Regarding **claim 12 and 13**, Vance discloses a mobile communication terminal (c. 2, II. 31-42) comprising:

a photographic apparatus rotatively connected to the terminal (c. 2, I. 63 – c. 3, I. 5; Fig. 1, “32”, image sensor; c. 3, I. 26 – c. 4, I. 23; Figs. 4&5, optics);
a magnet connected to the photographic apparatus, wherein the magnet generates a magnetic flux; and a magnetic flux sensor connected to the terminal, wherein an image produced by the photographic apparatus is inverted when the

magnetic flux sensor detects the magnetic flux (c. 4, II. 24-56, Hall-effect sensors, magnetic sensors; according to Vance, detection triggers inversion).

However, Vance does not disclose that the image is inverted when magnetic flux is not detected.

ON is taken that it is a well-known design choice to reverse the parts; in this case to allow image inversion when magnetic flux is not detected. See MPEP 2144.04 [R-1] (VI)(A). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to allow image inversion when magnetic flux is not detected, which is a simple design choice, in the mobile communication terminal disclosed by Vance because as long as the product designers can determine the amount rotation/orientation of the photographic apparatus based on the presence or absence of the detection of magnetic flux, a decision for or against image inversion can be made.

Regarding **claim 15**, refer to the rejection of claim 12 and Vance further discloses that the inverted image is reproduced on a display in the terminal (c. 4, II. 33-37).

10. Claims 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vance in view of Kim (US 6,882,726).

Regarding **claim 5**, Vance discloses a mobile communication terminal that can invert an image based on detection of a magnetic flux (refer to the rejection of claim 1). Vance further discloses a display (c. 2, II. 54-56; c. 3, II. 6-25; Figs. 1&2, "26"); a lower body (c. 3, II. 6-25; Fig. 2, "40") comprising a circuit board (c.

3, II. 20-25; Fig. 4, "38") wherein the circuit board receives a signal emitted by the magnetic flux sensor to invert the image produced by the photographic apparatus (c. 4, II. 38-56). However, Vance does not disclose an upper body having a lower surface; a hinge connection element rotatably connecting the lower body to the upper body; and that the display is installed on the inner surface of the upper body.

Kim discloses a mobile communication terminal (c. 3, I. 45 – c. 4, I. 37; Figs. 1&2) comprising a lower body (Fig. 2, "10"); an upper body having a lower surface (Fig. 2, "20"); a hinge connection element rotatably connecting the lower body to the upper body (Fig. 2, "30"; c. 4, II. 42-57; Fig. 3); and a display which reproduces the image captured by the photographic apparatus, the display being installed on the inner surface of the upper body (Fig. 2, "220"). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention that the mobile communication terminal take the form of a folder-type terminal as disclosed by Kim in the mobile communication terminal disclosed by Vance in order for the user/consumer to carry a more compact terminal where the majority of operational keys are protected when the terminal is folded (as is notoriously well known in the art).

Regarding **claim 6**, refer to the rejection of claim 5 and Kim further discloses that the photographic apparatus is rotatably connected to the terminal at the hinge connection element (Figs. 2&3, "30", "310").

Regarding **claim 7**, refer to the rejection of claim 6 and Vance further discloses that the magnetic flux sensor is connected to the circuit board (c. 3, II. 20-25; c. 4, II. 38-56).

Regarding **claim 8**, refer to the rejection of claim 6 and it is inherent that the magnet is connected to an inner surface of the photographic apparatus so that the magnet can rotate with the photographic apparatus and in order to prevent disrupting the rotation, i.e. if the magnet were placed on the outside surface it would disrupt rotation.

Regarding **claim 9**, refer to the rejection of claim 8 and it is inherent that the magnet's outer surface approximates the inner surface that it is connected to in order for the magnet to sit/connect flush to the photographic apparatus' surface.

11. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vance in view of Kim in further view of Official Notice (ON).

Regarding **claim 10**, refer to the rejection of claim 9 and Official Notice is taken that it notoriously well-known to connect two materials (the magnet and the photographic apparatus) with an adhesive. Therefore, it would have been obvious to connect the magnet and the photographic apparatus with an adhesive as is well known in the art in the mobile communication terminal disclosed by Vance in view of Kim in order to secure the magnet to the photographic apparatus.

12. Claims 16-19 are rejected under 35 U.S.C. 103(a) as being**unpatentable over Vance in view of ON in further view of Kim.**

Regarding **claim 16**, Vance in view of ON discloses a mobile communication terminal that can invert an image based on detection of a magnetic flux (refer to the rejection of claim 1). Vance further discloses a display (c. 2, ll. 54-56; c. 3, ll. 6-25; Figs. 1&2, "26"); a lower body (c. 3, ll. 6-25; Fig. 2, "40") comprising a circuit board (c. 3, ll. 20-25; Fig. 4, "38") wherein the circuit board receives a signal emitted by the magnetic flux sensor to invert the image produced by the photographic apparatus (c. 4, ll. 38-56). However, Vance in view of ON does not disclose an upper body having a lower surface; a hinge connection element rotatably connecting the lower body to the upper body; and that the display is installed on the inner surface of the upper body.

Kim discloses a mobile communication terminal (c. 3, l. 45 – c. 4, l. 37; Figs. 1&2) comprising a lower body (Fig. 2, "10"); an upper body having a lower surface (Fig. 2, "20"); a hinge connection element rotatably connecting the lower body to the upper body (Fig. 2, "30"; c. 4, ll. 42-57; Fig. 3); and a display which reproduces the image captured by the photographic apparatus, the display being installed on the inner surface of the upper body (Fig. 2, "220"). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention that the mobile communication terminal take the form of a folder-type terminal as disclosed by Kim in the mobile communication terminal disclosed by Vance in view of ON in order for the user/consumer to carry a more compact

terminal where the majority of operational keys are protected when the terminal is folded (as is notoriously well known in the art).

Regarding **claim 17**, refer to the rejection of claim 16 and Kim further discloses that the photographic apparatus is rotatively connected to the terminal at the hinge connection element (Figs. 2&3, "30", "310").

Regarding **claim 18**, refer to the rejection of claim 17 and Vance further discloses that the magnetic flux sensor is connected to the circuit board (c. 3, II. 20-25; c. 4, II. 38-56).

Regarding **claim 19**, refer to the rejection of claim 17 and it is inherent that the magnet is connected to an inner surface of the photographic apparatus so that the magnet can rotate with the photographic apparatus and in order to prevent disrupting the rotation, i.e. if the magnet were placed on the outside surface it would disrupt rotation.

Double Patenting

13. Claims 1 and 4 are directed to the same invention as that of claim 1 of commonly assigned US Patent No. 7,215,355. The issue of priority under 35 U.S.C. 102(g) and possibly 35 U.S.C. 102(f) of this single invention must be resolved.

Since the U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP Chapter 2300), the assignee is required to state which entity is the prior inventor of the conflicting subject matter. A terminal disclaimer

has no effect in this situation since the basis for refusing more than one patent is priority of invention under 35 U.S.C. 102(f) or (g) and not an extension of monopoly.

Failure to comply with this requirement will result in a holding of abandonment of this application.

14. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

15. Claims 1 and 4 are rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 4 of prior U.S. Patent No. 7,215,355. This is a double patenting rejection.

Allowable Subject Matter

16. Claim 11 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following disclose folding-type mobile communication terminals comprising a photographic apparatus:

Ahn et al.	US 6,785,935
Fisher	US 6,876,379
Lim	US 7,184,092
Suso et al.	US 6,069,648
Shibata et al.	US 7,084,919
Nishino et al.	US 7,046,287
Lenchik et al.	US 6,658,272
Suso et al.	US 6,466,202
Tatehana et al.	US 6,879,337
Park	US 6,687,117
Ando et al.	US 6,791,597

The following disclose image rotation:

Ando et al.	US 6,791,597
Lenchik et al.	US 6,658,272
Shibata et al.	US 7,084,919
Tanaka et al.	US 6,630,958
Kawai et al.	US 2005/0248678

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard M. Bemben whose telephone number is (571) 272-7634. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lin Ye can be reached on (571) 272-7372. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



RMB
7/19/07

RMB
7/19/07

LIN YE
SPE. ART UNIT 2622